

KRUPSKIY, B.I.; GLUZMAN, L.P.

Using electric metal spraying in the repair of metal-cutting
machines. Stan.1 instr. 27 no.10:32-33 0 156. (MLB 9:12)
(Metal spraying) (Machine tools-- Repairing)

GLUZMAN, M.A., inzhener-fizik

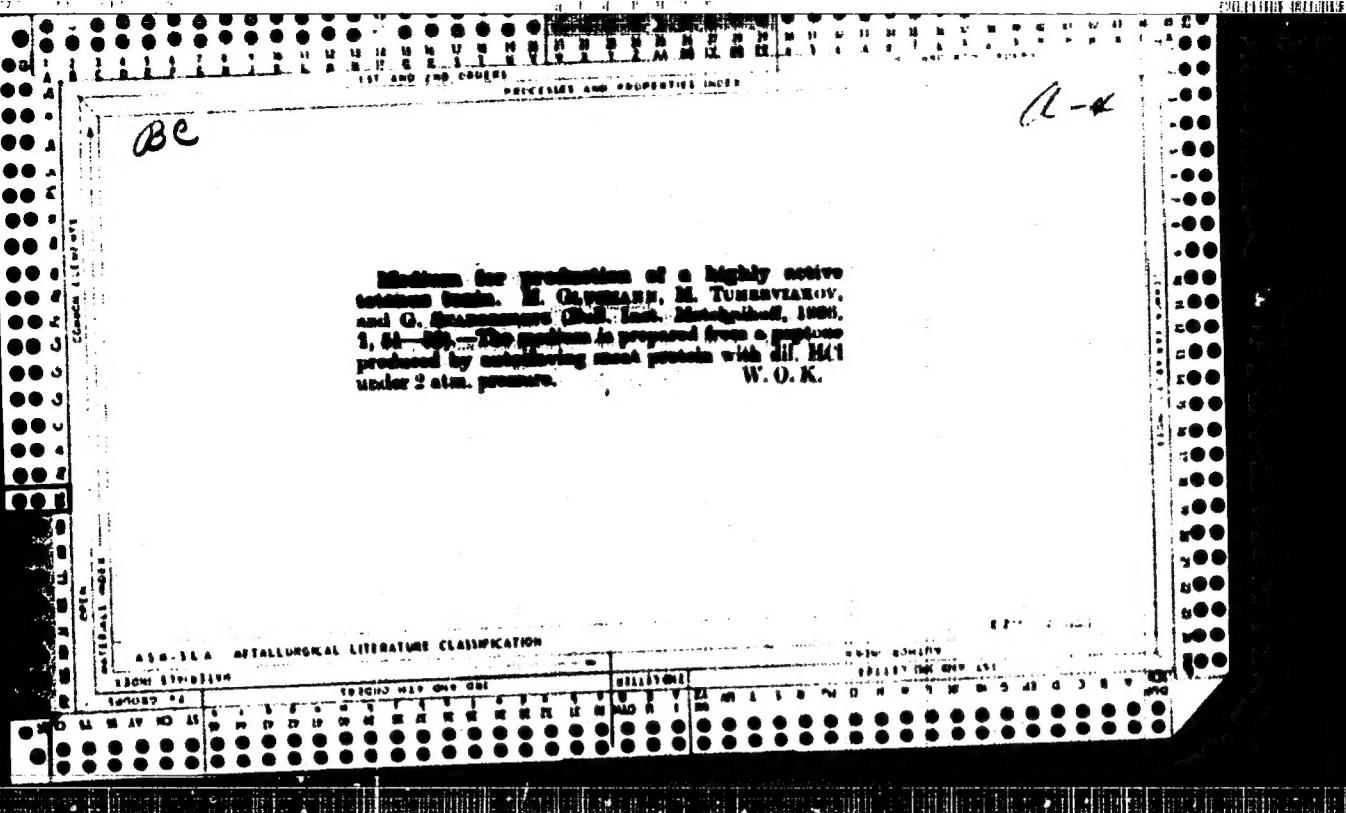
Method for determining the radioactivity of aerosols in the air
by the aspiration method. Gig.i san. 25 no.2:79-83 p 160.

1. Is sozal'noy radiologicheskoy laboratori Odeskoy oblastnoy
sanitarno-epidemiologicheskoy stantsii.
(AIR--ANALYSIS)
(RADIOACTIVITY--MEASUREMENT)

BEYGEL', Z., nauchnyy sotrudnik; TALESNIK, Ye., nauchnyy sotrudnik;
DUSHNOV, Yu., nauchnyy sotrudnik; PARKHOMOVSKAYA, E., nauchnyy
sotrudnik; GLUZMAN, M., nauchnyy sotrudnik

Effectiveness of manufacturing highly prefabricated reinforced
concrete elements and joiner's articles. Zhil. stroi, no.1:
(MIRA 18:11)
5-7 '64.

1. Nauchno-issledovatel'skiy institut zhelezobetonnykh izdeliy
stroitel'nykh i nerudnykh materialov Glavnogo upravleniya
promyshlennosti stroitel'nykh materialov i stroitel'nykh
detalej.



Condensation products of *N*-aminocarbazole (biphenyl-enehydrizine) with fluoroenes and its derivatives. M. K. Glusman. *Trudy Akad. Nauk SSSR, Khim. Klassif. Reakts.*, 1, No. 4, 58 (1939).—Condensation of *N*-aminocarbazole (I) with carbonyl compounds was investigated by Wieland (C. A., 7, 266) and by Blom (C. A., 11, 450). By condensing I with fluorophenone (II) (obtained fluorotetraphenylenehydrizine, $(C_6H_5)_2N-N(C_6H_5)_2$, (IV) and, correspondingly, he obtained 2-nitrofluorene-biphenylenehydrizine (V) by condensation of I with 2-nitrophenone (III). The method for the prepn. of *N*-nitrocarbazole and of I was improved. For the prepn. of IV heat for 2.5 min. 1 g. of I and 1 g. of II in 10 cc. of alc. with a drop of conc. H_2SO_4 . Light-red needles or flakes were obtained, m. p. 23° (rapid heating). For the prepn. of V heat for 5 min. 0.5 g. of I and 0.02 g. of III in 175 cc. of alc. with 3-4 drops of H_2SO_4 . The V (0.8 g.) formed red needles from alc. The m. p. was not sharp. A change took place at 177° and melting at 198-203°. The solv. of IV and of V are given in a table.

W. R. Hrotz

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Pd

PROPERTIES AND PREPARATION

Amino derivatives of carbazole and fluorene. M. Kh. Glurman. *Trudy Inst. Khim. Khar'kov. Gosudarstv. Univ.*, 5, 93-153(1940); *Khim. Referat. Zhur.*, 4, No. 7-8, 40-7(1941).—The reactions of 9-aminocarbazole with aldehydes, ketones and α - and β -quinones were studied. The condensations were carried out with Ph₂CO, Michler's ketone, *p*-Me₂N₂C₆H₄CHO, acrolein, benzoquinone, toluquinone, α -naphthoquinone, phanthrenequinone, acenaphthenequinone and β -naphthoquinone. Unfavorable results were obtained in condensations with ketones. Condensation with aldehydes and quinones yielded the following biphenylenhydrans: (1) β -dimethylamino-benzaldehyde, m. 123-4°, green-yellow crystals; (2) acrolein, m. 48°; (3) phanthrenequinone, m. 223-7° (decompn.), yield 65-70%; (4) acenaphthenequinone, blue-green crystals; on grinding the crystals are trans-

formed into a red powder, m. 208-9°, yield 80%; (5) α -naphthoquinone, red violet plates, m. 121-3°, yield 60%; (6) β -naphthoquinone, m. 126° (improved method for obtaining β -naphthoquinone). The reactions were carried out in alc., except the last reaction, which was carried out in ether. Addn. of 1 drop of HgSO₄ increased considerably the yield. Some of the biphenylenhydrans dissolved in concd. H₂SO₄ and were decomposed into the initial compounds on the addn. of water. This method permits the sep. and purification of the carbonyl compds. in the form of biphenylenhydrans. The reaction of 9-aminocarbazole with such cyclic ketones as ammiodiarenone was unsuccessful. In alc. with the addn. of HgSO₄ only the sulfate of ammiodiarenone was obtained. Treatment of alc. soln. of 9-aminocarbazole with AcOH soln. of ammiodiarenone gave the red mono-Ac deriv., m. 222-8°, of ammiodiarenone, and a yellow mol compd., m. 104-5°, of the mono-Ac and the di-Ac derivs. Treating the yellow substance with CHCl₃ or benzene gave the yellow-green di-Ac deriv., m. 110-8°. Sulfide compds. of the mono- and di-Ac derivs. with HCl and ZnCl₂ were obtained. The mechanism of the formation of quinone biphenylenhydrans and the ability of the quinones to react at only 1 of the carbonyl groups are explained from the point of view of the electron-resonance theory.

W. R. Henn

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STRUCTURE AND PROPERTIES OF
BENZYLIC DERIVATIVES OF NITROKETONES, KETONES, AND
CARBOXYLIC ACIDS. I. 2-NITRO-1,3-DIMETHYL-1-BUTENES
State Univ.), J. Gen. Chem. U.S.S.R. 18, 1119 (1946). — **Nitrophenylbenzohydrazine** (3-nitrocarbazole) is preparable in 40% yield by nitration of carbazole and reduction of the product by Zn dust in EtOH-AcOH; the product is a powerful skin irritant. The following aldehydes and ketones (nitrophenylbenzohydrazones) were prepared with it: *p*-dimethylaminobenzaldehyde, m. 122.5° (from LiOH); acetone, m. 98°; *Acetoneone*, m. 182.3°; 2-nitrofuranone, m. 192.7° or, at times, 198.20°; *Phenanthrenecarboxylic acid*, m. 221.7°; *Acenaphthenequinone*, m. 248.0°; *1,4-naphthoquinone*, m. 121.3° (from KOH); *1,2-naphthoquinone*, m. 120° (decomp.). (G. M. Kosakoff)

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PROCESSING AND PROPERTIES INDEX

Products of acetylation of 2-aminofluorescens. E. S. Khotinskii and M. Kh. Gluzman. *J. Gen. Chem. (U.S.S.R.)* 15, 477-82 (1948). Acetylation of 2-aminofluorescein (I) by excess Ac₂O yields a 1:1 mol. compd. of mono- and diacetylaminofluorescens. AcCl gives only the mono-Ac deriv. The mol. compd., formed in 80-90% yields, m.p. 193-4° (from EtOH); it is readily sept. into its components by treatment with CHCl₃, which causes the red mono-Ac compd. to float on top, or by heating with benzene 2-3 hrs., the mono-Ac deriv., m. 227-8°, being isol., and the di-Ac-deriv., m. 143-1° (from EtOH), being recovered from the soln. Both form cryst. ZnCl₂ adducts and readily hydrolyzable HCl salts which are best prepd. by passing dry HCl into EtOH or benzene solns. of the compds. Use of excess AcCl in the acetylation of I yields the mono-Ac deriv., m. 229-30° (from EtOH). G. M. Kosolapoff

ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION

SCHOOL OF METALS

TECHNICAL INFORMATION

*ca**10*

1951

Polymorphic change in 2-methoxy-7-acetamido-9-fluorenone — M. Kh. Ishmanov, I. S. Palatnik, and D. I. Plakhotko (Kharkov State Univ.), Zhur. fiz. khim. 25, 10-12 (1951). — Acetylation of 2-methoxy-7-amino-9-fluorenone (Bickert and Langecker, C.A. 22, 1960) gives yellow (I) and red (II) crystalline polymorphous modifications of the N-Ac deriv. On heating at 200-210°, I gives II, m.p. 237°, within 10-15 min. Slowly cooling a PhCl soln. of II gives I; rapid cooling of the same soln., gives II but on standing in the mother soln., the red crystals become yellow after 1-2 hrs. Recrystall. of II from Al(OEt)₃ soln. gives I. The mol. wts. of I and II are identical. Both I and II contain the same no. of Ac groups. No weight change is observed during the transition. No Cl is detected in I (recrystall. from PhCl). Solns. of I and II have the same color at the same concn.— yellow in dil. and red in concn. solns. Both modifications have identical absorption spectra in the visible and ultraviolet, but give different color patterns. — Michel Boudart

GLUZMAN, M. KH;DASHEVSKAYA, B. I;YAVLINSKIY, M. D.

Preparation of pyrimidine from mother liquor. Med. promyshl.
SSSR no.2:29-34 Mar-Apr 1952. (CLML 22:2)

1. Khar'kov Scientific-Research Pharmaceutic Chemistry Institute.

GLUZMAN, M. K.

Synthesis of derivatives of diquinovoyl estone and sulfonide. III. *N*-Glucosides from diquinovoyl sulfone and 4,4'-diquinovoyldiphenyl sulfone, diaminodiquinovyl sulfone, and some of their derivatives. M. K. Gluzman and L. M. Litvinenko (Kharkov State University), Zhur. 18, 182 (1951) (Russia); C. Troy Inst. Russ., Kharkov, Gausdorff Univ. 9(1951).—Diquinovoyl sulfone (I) (0.3 g.) and 0.4 g. (ρ - $H_2NC_6H_4SO_3$)₂ heated 1 hr. in 2.1 ml. abs. MeOH and 1 ml. 1.6*N* AcOH gave a glassy solid which, rubbed with dry Na_2CO_3 , yielded 95% $SO_3[CH_2N(CH_2CHOH)_2CH_2]_2SO_3$, decomp. 201°, $[\alpha]_D^{25} -66^\circ$ (pyridine). This (0.4 g.) and 0.13 g. $Na_2S_2O_4$ boiled 2 hr. in 1.2 ml. H_2O and 2 ml. EtOH, cooled, decanted from a small ppt., and treated with EtOH-Et₂O gave 67% amorphous bisulfite complex, $C_{12}H_{22}O_8N_2S_2Na_2$, decomp. 205°, $[\alpha]_D^{25} -27.3^\circ$ (50% pyridine). Similar coupling of 2 moles I with the sulfone gave 79% $[CH_2N(CH_2CHOH)_2CH_2CH_2]_2SO_3$, decomp. 130°, $[\alpha]_D^{25} -16.9^\circ$ (pyridine). This reduces Fehling soln., although fairly slowly, and reacts slowly with ammoniacal $AgNO_3$. Similar coupling of 1 mole I with excess (2.45 moles) ρ - $(O_2NCH_2)_2C_6H_4NH_2$ gave 85% ρ - $O_2NCH_2C_6H_4SO_3Na$, $[\alpha]_D^{25} -29.6^\circ$ (H_2O). In the condensation up to 4*N* the reaction yields new substances; thus 0.4 g. I and 1 g. ammonium-diphenyl sulfone boiled in 3 ml. abs. MeOH and 0.8 g. AcOH 1 hr. gave 84% $SO_3[CH_2(C_6H_5OH)_2CH_2N(C_6H_5SO_3^-)CH_2]_2SO_3$ (III), decomp. 210-18°, $[\alpha]_D^{25} -110^\circ$ (pyridine), which failed to yield a bisulfite complex. Reduction of III in aq. alc. NH_2OH with H_2S at room temp. gave

the corresponding amine disulfop. 130-70°, $[\alpha]_D^{25} -11.5^\circ$ (pyridine), which with 0.5 g. $Na_2S_2O_4$ in pyridine- $EtOH$ gave 65% Schiff base, $C_{12}H_{22}O_8N_2Na_2$, decomp. 170-9°, $[\alpha]_D^{25} -31.0^\circ$ (pyridine). Similar reduction of III give the corresponding dicarboxylic acid, decomp. 170-80° (from pyridine- Et_2O), $[\alpha]_D^{25} -11.8^\circ$ (pyridine), which Schiff base with itself, $C_{12}H_{22}O_8N_2Na_2$, decolor. 223-8°, $[\alpha]_D^{25} -61.1^\circ$ (pyridine). The diamine form, N,N' -bis(ρ - $H_2NCH_2C_6H_4SO_3^-)C_6H_4NH_2$, 63%, decolor. 113° (pyridine- $EtOH$ - Et_2O). Structure of 1,1'-bisquino-*SO_3* sulfone and sulfonide. M. K. Gluzman, L. M. Litvinenko, and T. V. Kostyleva, Zhur. 18, 194 (1951). Passage of dry NH_3 at 0° into 0.5 g. diquinovoyl sulfone in 4 ml. aq. MeOH strong and dilute, with dry Et_2O gave a viscous liquid, which, taken up in H_2O and dried, with Et_2O , then evapd. in vacuo, gave 66% $C_{12}H_{22}O_8N_2Na_2$, indicating the addition of NH_3 (one mole); the product was soluble in aq. H_2O with

base reaction, reduced Pb^{2+} in aq. soln., and was quite stable in aq. soln. at room temp.; it is also formed in 93% yield if a little $AcOH$ is added to the moln. It appears to be 1,1'-bisquino-*SO_3* sulfone, i.e., a substance with a cyclic structure with 10 members in the main ring, 2 moles $[\alpha]_D^{25} -63.3^\circ$ (H_2O). Similar treatment of diquinovoyl sulfone with NH_3 in Et_2O using a little $AcOH$ similarly gave 1,1'-bisquino-*SO_3* sulfonide, a solid whose properties are similar to those of the above described sulfone, although it is less soluble; $[\alpha]_D^{25} -71.8^\circ$ (H_2O). M. K. Gluzman

OLUZMAN, N.Kh.; LITBINENKO, L.M.; TOKAREVA, Ye.

Synthesis of derivatives of dichinovosylsulfone and sulfoxide. Part 4.
Synthesis of 1,1'- iminodichinovosylsulfone and sulfoxide. Ukr.khim.zhur.
18 no.2:194-196 '52. (MLRA 6:9)

1. Khar'kovskiy gosudarstvennyy universitet.
(Sulfones) (Sulfoxides)

Synthesis of derivatives of diquinovoryl sulfone and sulfoxide. V. Acetidibromodiquinovyl sulfone and sulfoxide. M. Kh. Chizhev and I. M. Litvinenko (State Univ., kharkov). *Vestn. Khim. Zhur.* 18, 310-18 (1952); cf. C. A. 48, 13043. Octaethyl-diquinovyl sulfone (2.2 g.) was dissolved with shaking and cooling in 22 ml. HBr in AcOH (d. 1.14) over 1.5 hrs. and the soln. was kept at room temp. 3 hrs., then treated with cooling with 100 ml. ice-H₂O and filtered immediately; the thoroughly washed and dried

product, obtained in 65% yield, was $O_2S(CH_2CH_2)_3CH_2O_2S$.

CH₃B(OH)₂, acetodibromodiquinovyl sulfone, m.p. 105–10° (from EtOH), $[\alpha]_D^{25}$ 162° (Cl/Cl). This (0.3 g.) and 0.3 g. $\text{P}-\text{H}_2\text{N}-\text{C}_6\text{H}_4-\text{SO}_2\text{C}_6\text{H}_4-\text{NO}_2$ in 3 ml. CH_2Cl_2 were refluxed 60 min. (heating has to be stopped when darkening begins), cooled rapidly, and treated with 6 ml. dry Et_2O and 6 ml. dry petr. ether; the viscous ppt. was washed with more dry Et_2O , yielding 66% corresponding *N*-glycoside, $\text{C}_2\text{H}_{10}\text{NO}_2\text{S}_2$; powder, $[\alpha]_D^{25}$ 15.8° (pyridine). Similarly octaaceyl diquinovyl sulfone gave the acetodibromo derivative, $\text{C}_2\text{H}_{10}\text{NO}_2\text{SBr}_2$; powder (from $\text{Et}_2\text{O}/\text{Et}_2\text{O}$); $[\alpha]_D^{25}$ 230° (CHCl₃), which

with *p*-nitro- ρ' -nitrodiphenyl sulfone gave 43% corresponding *N*-glycoside, $\text{Ca}(\text{L})_2\text{S}_2\text{O}_4$, powder, m.p. 113°. The formation of the phenoxy-like does not proceed in CH_2Cl_2 , which failed to condense with Ag salt of 6-hydroxy-6-methyl- α -D-glucopyranose.¹⁰ Long refluxing in xylene, PhNO_2 or tetraphenylboron, 113–116°.

cyclic structure, essentially $O_2S(CH_2)_3H_2(CHOAc)_2CH_2C=O$ or RR' . The condensation products of this sulfone with α,β -diaminodiphenyl sulfone (II) or the nitro-aniline analog (III) have the structure of aromaticine dyes: $HO_2C(CH_2)_3C(=O)NH_2-CH_2-NH-C_6H_4-SO_2C_6H_4NO_2-\rho-$ α,β -di- or α,β -di- $[CH_2-C(=O)-NH_2-CH_2-NH-C_6H_4-SO_2C_6H_4NO_2-\rho-$. The glucoside from I and III heated in pyridine with Ac_2O 30–40 min. gave the hexa-O-acetyl derivative, decomp. 172–4°, $[\alpha]_D^{25}$ 8.2° (Me₂CO).¹¹ The deacetylation of Ac groups in this and similar substances is readily done by treatment of the substance in pure Me₂CO with 0.06 N KOH in MeOH; the deacetylated glucoside ppt., immediately; the excess alkali is back-titrated. The condensation product of I with 2 moles II treated with Ac_2O -pyridine 2 days at room temp. gave 85% acetylated dyes, C₄₁H₄₂N₂O₁₀S, m.p. 285°, $[\alpha]_D^{25}$ –80° (pyridine). G. M. Kishida and

GLUZMAN, M. KH.

Rejected

65.1, 173-4°, -0.5°, 133-5°, 30.8°; I, $NH_2CH(CO_2H)CH_2CH_2Me$, 51.8, 218-219°, -12.0°, 208-10°, 33.7°; I, $NH_2CH(CO_2Na)CH_2CH_2CO_2H$, 45.8, 160-2°, -0.5°, 128-30°, 20.5°; I, $\phi-HOCH_2CH_2CH_2CH_2CH(NH_2)CO_2H$, 70.7,

233-4°, -27.7°, 215-26°, 40.1°; I, $HN(CH(CO_2H))CH_2CH_2$,

S_2CH_2 , 27.7, 95-100°, -10.6°, —, —; I, $\phi-NH_2CH_2CO_2H$, 89, 65-70°, -17.5°, discomp. 150°, 09.1°; I, $NH_2CH_2CONHCH_2CO_2H$, 36, 105-6°, -13.5°, —; II, $H_2NCH_2CO_2H$, 60.2, 108°, -0.2°, 110-20°, 38.3°; II, H_2NCH_2

$(CO_2H)CH_2C_6H_4NH_2CH_2N$, 61, 160-70°, -23.6°, —; II, $H_2NCH_2(CO_2H)CH_2C_6H_4N$ (3-indolyl group), 211-12°, -24.3°, —; II, $(NH_2CH(CO_2H)CH_2S)_2CH_2Pb$, 89.3, 158-60°, 40.6°, 95-100°, -0.8°; II, $H_2NCH_2CONHCH_2CO_2H$, 73, 120-30°, -10.0°, —, —; I, $NH_2CH_2CO_2Bu$, 90, 173-5°, -7.8°, which hydrolyzed with Ba(OH)₂ gave the same product as obtained from Ba salt of glycine above. Ba[CH₂CH(NHR)CO₂H] (III) di(1,2-isopropylidene) (R = quinov-6-yl) (72% yield) m. 208-10°, α -40.5°; III m. 125-30°, α 17.5°. Use of 3 moles of anhydroglucosamine with 1 mole of Ba salt of tryptophane give the II deriv., whose di(1,2-isopropylidene) deriv., 28%, m. 90-100°, -23.0°. The I deriv. of $NH_2CH(CO_2Me)CH_2CH_2OH-\phi$, 1,2-isopropylidene deriv., 61% m. 232-4°, 11.8°; the I deriv. of $NH_2CH_2CO_2Et-\phi$ (IV) 1,2-isopropylidene deriv., 93%, dil. α -3.4°; IV, m. 135-40°, α 33.6°; the II deriv. of $H_2NCH_2(CO_2H)CH_2CH_2OH-\phi$ 1,2-isopropylidene deriv., 83%, m. 100-10°, α -5.2°. The location of the isopropylidenequinovosyl residue in the II histidine deriv. was made by Lautenschläger titration (C.A. 38/466), which showed that the nuclear N was unaffected while the NH₂ group reacted with 2 moles of anhydroglucosamine. Since I and II are unstable in air the cleavage of isopropylidene residuus was made in II after m. 30% AcOH. The products were probably in pyramidal state. G. M. K.

C.A. V-48

Jan 10, 1954

Organic Chemistry

Sugar derivatives of amino acids. M. Kh. Gluzman and V. I. Kovalenko (A. M. Gor'ki State Univ., Kharkov); Doklady Akad. Nauk S.S.R. 87, 63-4 (1952); cf. Heberle and Mittag, C.A. 32, 3370. —Sugar derivs. of amino acids are readily obtained by heating an equimolar mixt. of Ba salt of an amino acid with anhydroglucose on a steam bath 2-4 hrs., followed by removal of Ba with 0.4N H₂SO₄; evapn. *in vacuo*, formation of benzylidene deriv. and purification of the latter. The procedure can be applied to di- and tripeptides, but 0.05N Ba(OH)₂ must be used for formation of solns. of the peptides to minimize their hydrolytic cleavage. The following N^{α} -monoquinov-6-yl (I) and N,N -diquinov-6-ylamino acids (II) were obtained [the deriv. (I or II) (Δ), the amino acid, % yield, n.p., and α of the 1,2-isopropylidene (for I) or di(1,2-isopropylidene) (for II) deriv. of Δ , and m.p. and α of Δ given]; I, $NH_2CH_2CO_2H$,

GLUZMAN, M.Kh.; LITBINENKO, L.M.

Synthesis of derivatives of dichinovosylsulfone and sulfoxide. Part 6.
Structure of \mathcal{N} -glucosides of dichinovosylsulfone. Ukr.khim.zhur. 18 no.3:
320-326 '52. (MLRA 6:9)

1. Dnipro'kovskiy gosudarstvennyy universitet. (Sulfones) (Glucosides)

GLUZMAN, M. Kh. and KOVALENKO, V. I.

Sugar Derivatives of Amino Acids. V. Interaction of Anhydroglucose with Phenylidiencolic Acid and Thiazolidine Carboxylic Acid, page 462, Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol I, Moscow-Leningrad, 1953, pages 762-766.

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Chem Abstr. V48
1-25-54
Organic Chemistry

(3)
 ✓ Sugar derivatives of amino acids. I. Quinovosyl-glycine and its derivatives. M. Kh. Gitelman and V. I. Kovalevko (A. M. Gor'ki State Univ., Kharkov). *Zhur. Obschekh. Khim.* 23, 80-93 (1953).—A review of carbohydrate-protein and carbohydrate-peptide complexes is given (3) references. Prepn. of amino acid complexes with carbohydrates is readily accomplished by condensation of monoacetobenzenhydroglucose (1) with Ba salts of amino acids, which results in the joining of C-6 atom of the monose to the N atom of the amino acid. To soln. of 67.8 ml. 0.2N Ba(OH)₂ and 1.1 g. glycine was added 2.78 g. I, heated on steam bath 2.5 hrs., Ba removed with H₂SO₄, the filtrate evapd. in vacuo, dried at 90-100°, boiled with dry EtOAc, then with Me₂CO and filtered; the solid was washed with Me₂CO and Et₂O leaving behind 85% 1,2-isopropylidenequinovosyl-6-N-glycine, m. 173-4°, [α]_D -6.3° (H₂O); its aq. soln. is acid, dissolves BaCO₃ and such salts, ppt. Ba only with H₂SO₄ not with CO₂. The product is sol. in H₂O and AcOH, less in 70% EtOH; Ag salt is a white solid. The product hydrolyzed 3 hrs. in H atm. in 50 ml. 50% AcOH, evapd., and dried gave 29% 6-quinovosyl-N-glycine, m. 169-5°, [α]_D 30.8° (H₂O); phenylolstone, m. 149°. Similar reaction of 0.30 g. glycine in 24 ml. 0.2N Ba(OH)₂ with 2.1 g. I gave 50.2% bis(1,2-isopropylidene-6-quinovosyl)-N-glycine, m. 168-0°, [α]_D -8.2°. This does not reduce Fehling soln. Hydrolysis with 50% AcOH as above followed by extn. of the product with hot MeOH gave some 35% bis(6-quinovosyl)-N-glycine, decomp. 110-20°, [α]_D 23.8° (H₂O), which reduces warm Fehling soln., but gives no color with ninhydrin. Heating 1.86 g. I in 18 ml. dry (CH₂Cl)₂ with 1.1 g. H₂N-CH₂CO₂Bu to 60-70° followed by 3 days at room temp., concn. in vacuo, heating the residue 3 hrs. with H₂O, extn. of the residue with CH₂Cl₂ and evapn. of the ext. gave N-(1,2-isopropylidene-6-quinovosyl)glycine Bu ester, an amorphous solid, softening at 50-60°, [α]_D 14.8° (CH₂Cl₂). The condensation can be run by heating on a water bath or in (CH₂Cl)₂-MeOH. Hydrolysis of the Bu ester 4 days at room temp. in 0.2N Ba(OH)₂ gave 24% N-(1,2-isopropylidene-6-quinovosyl)glycine, m. 173-5°, [α]_D -7.8°, identical with the above pregn. G. M. Kosolapoff

GLUZMAN, M. Kh.; KOVALENKO, V. I.

Tyrosine

Sugar derivations of amino acids. Part 3. Condensation of anhydroglucose with tyrosine. Zhur. ob. khim. 23, No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

GLUZMAN, M. Kh. and KOVALENKO, V. I.

Sugar Derivatives of Amino Acids. VII. Quinovosyl-n-Aminobenzoic Acid and its Derivatives,
page 469, Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry),
Vol I, Moscow-Leningrad, 1953, pages 762-766.

Khar'kov State U

GLUZMAN, M. Kh. and KOVALENKO, V. I.

Sugar Derivatives of Amino Acids. IX. N-Glucosides of Quinovosyl Amino Acids and Amino Alcohols, page 476, Sbornik stately po obshchey khimii (Collection of Papers on General Chemistry), Vol I, Moscow-Leningrad, 1953, pages 762-766.

Khar'kov State U, Inst Chemistry

GLUZMAN, M. K.

USSR.

A method of determining the temperature of appearance of liquid phase in mixtures of solid products. M. K. Gluzman, A. L. Gershuni and V. N. Osemin. Zh. Tekhnicheskoi Kibernetiki, No. 25, 1107-8(1983)(Engl. translation). See C.I. 48, 7903b.

GLUZMAN, M. Kh.

(4)
A method of determining the temperature of appearance
of liquid phase in mixture of solid products. M. Kh.

Gluzman, A. L. Gerzhins, and V. P. Goryain (A. M.

Chernivtsi State Univ., Chernivtsi), *Zhur. Fizikal. Khim.*

26, 1223-4(1933).—Appearance of a liquid phase such as
a eutectic mixt., can be observed microscopically by the
appearance of "contact melting" of a small piece of one
solid phase on a thin layer of the 2nd on a suitable melting
block. V. N. Bodnaruk

10-12-54

mk

U S S R .

Eutectics in quasi-equilibrium in systems of the anhydride-amide type. M. Eh. Olyanov, A. L. Gerasimov, I. S. Polatnik, D. V. Pleshkov, and R. S. Miller (A. M. Gor'ki State Univ., Kharkov), ZNTR, Ser. Khim. 27, 1594-60 (1953); cf. C. A. 43, 7033b. The appearance of a liquid phase (*P*) in binary or systems (*A*-*B*) at the temp. T_E , 10-20° below the m.p. (T_s) of the eutectic (*A* + *C*) (or *B* + *C*), where either *A* or *B* is an anhydride, the other is an acid anhydride; (or acid, or acid chloride), and *C* is the compd. formed in the reaction of *A* and *B*, was observed by the "impulse conduct" method; in this a crystal of *A* was placed on a thin layer of *B* at several known temps. till a microscope stage. T_E was the lowest temp. at which the liquid phase was seen. *P* was a quasi-endl. eutectic (*A* + *B*) whose eutectic point lay on the continued liquidus branch of the equil. diagram of the system (*A*-*B*). The rate of reaction of powd. mixts. of *A* and *B* upon sintering, measured as a function of temp., displayed a sudden, sharp rise as the increasing temp. reached T_E ; this was due to the formation of an uncrossed liquid phase. A phase diagram of the system phthalic anhydride (I)-2-naphthylamine (II) is given. The m.p. of *A*, *B*, and *C*, T_E , T_s , yield of *C* at the temp. T_E and concn. of *P* are tabulated for the systems I-anthranilic acid (III), I-p-aminobenzoic acid, I-II, I-m-nitroaniline (IV), I-p-nitroaniline (V), V-succinic anhydride (VI), VI-noranilic acid, VI-o-nitroaniline, IV-VI, VI-p-chloroaniline, VI-p-toluidine (VII), VI-1-naphthylamine (VIII), II-VI, VI-4-aminocoumarin, VI-2-aminothiophene, V-maleic anhydride, VIII-["]carbomethoxysulfanyl chloride["] (IX), II-IX, and VII-IX.

J. W. Lowberg, Jr.

GLAZMAN, M. Kh

Distr. LELJ

Reactions to which solid organic materials

I. Acylation of solid organic materials with solid acylating agents. U.S. Patent No. 3,089,181; German Pat. No. 1,022,414; French Pat. No. 1,343,377; British Pat. No. 1,014,158; Swiss Pat. No. 100,000; and others. The reaction of solid aromatic and heterocyclic amides with solid acylating agents (maleic, succinic, phthalic, and benzoic acid and sulfonyl chlorides). Initial products were ground in a mortar and in certain cases were heated at room temp. Solid laitance products easily converted to intermediate liquid products—euctectics. In order to obtain data on the absence of liquid euctectics in prep'd. and the reaction was carried out in temps. slightly too low for formation of a liquid phase. Solid org. materials have certain advantages over reactions carried out in *pliis*. J. B. H.

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APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0"

Guzman, M. K.

✓ Separation of lanolin from wool fat. M. Kh. Guzmin, B. I. Dushevskaya, and M. D. Yavlinoff (Sci. Research Chem.-Pharm. Inst., Kharkov). *Mashchino-Zhirovye Prom.* 20, No. 4, 22-6 (1955).—The method is based on an observation that yield (I) of lanolin is detd. primarily by the neutralization procedure employed, and that I is increased from 33-39 to 51-56.7% when a 2-stage neutralization process (II) is used. II is described as follows: crude lanolin, sepd. from wool fat after treatment with Berthelot salt and H_2SO_4 , is treated with 0.5% calcined soda, boiled in 1% H_2SO_4 , and centrifuged. The free fatty acids in lanolin are then neutralized with 20-25% NaOH soln. and dry calcined soda. After the addn. of alk., the resulting mass is heated, sepd., and the lanolin is washed free of soap, treated with industrial earth, and filtered prior to storage.
Vladimir N. Kravkovsky

GLUZMAN, M.Kh.; KLYUSHNIK, N.P.

Condensation of glucose with hydroaromatic ketenes. Zhur. ob.
khim. 25 no.11:2118-2120 0 '55. (MLRA 9:4)

I.Khar'kovskiy gosudarstvennyy universitet i Slavyanskiy khi-
miko-mekhanicheskiy tekhnikum.
(Glucose) (Ketene)

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.

New compounds of suppository bases consisting of stearic esters.
Apt.delo 5 no.4:14-18 Jl-Ag '56. (MLRA 9:9)

1. Iz Khar'kovsko nauchno-issledovatel'skogo khimiko-farmaceuticheskogo instituta.
(SUPPOSITORIES)

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.; ONITSEV, P.I.; BEZHUK, P.I.

Water soluble bases for suppositories and ointments. Med.prom.
10 no.4:14-15 O-D '56. (MLRA 10:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.
(SUPPOSITORIES) (OINTMENTS)

Gluzman, M. Kh.

✓2267. Identification of solid organic binary systems from the eutectic melting temperature. M. N. Gluzman and V. P. Rubtsova (Kharkov St. Inst. Chem. Techn. Inst.). *Zhur. Anal. Khim.* 1954, 11 (4), 640-643.—The contact fusion apparatus of Gluzman et al. (*Zhur. Pril. Khim.*, 1953, 26, 1223) is used in a study of eutectic melting-points of 2d binary organic systems. A method of identifying individual solid organic substances and binary mixtures with any ratio of the components is described.
G. S. Smith

11/17

PM

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0

GILZMAN, M. KH.

Identification of volatile organic library samples by the melting temperature of their salts

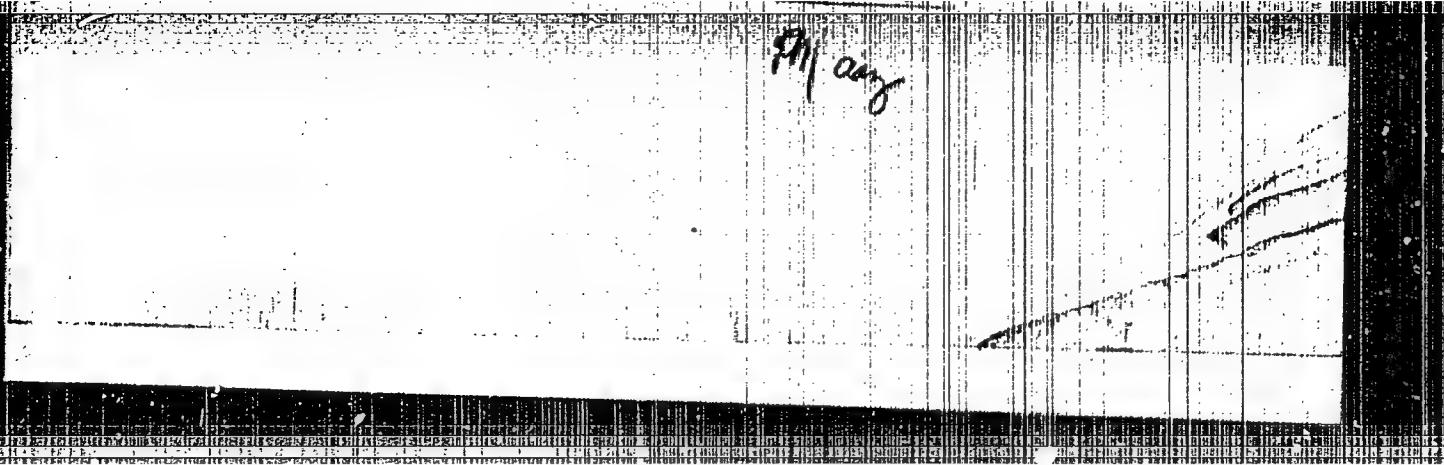
3

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0"

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CIA-RDP86-00513R000615510003-0



APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0"

USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical B-5
Analysis. Phase Transitions.

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26178

Author : M.Kh. Gluzman, B.I. Dashevskaya

Title : Study of Properties of Fatty Melts by Physico-Chemical
Analysis Method.

Orig Pub : Zh. prikl. khimii, 1956, 29, No 7, 1066-1070

Abstract : The fusibility diagrams of binary and ternary systems of fatty melts, the components of which were hydrogenated fat (I), hydrated fat, paraffin (II) and lanolin (III), were studied. The existence of an interaction between III and methylstearate (IV) or ethylstearate is shown. An eutectic at 32.5° (60% of IV, 30% of I and 10% of II) was detected in the ternary system I - II - IV.

Card : 1/1

GLUZMAN, N.M.

*Reactions with participation of solid organic substances. Part 2:
Short survey of some reactions which may be looked upon as interactions between solid organic substances. Uch.sov., ZHGU 21:177-185
1412 (Chemical reactions)*

GLUZMAN, I. Kh.; PROTKINA, D. Ya.

Reactions with participation of solid organic substances. Part 3:
Interaction between solid amines and solid maleic anhydride. Uch.
zap. KMGU 71:187-195 '56. (MLRA 10:2)
(Chemical reactions) (Amines) (Maleic anhydride)

~~GLUZMAN, A.Kh.~~

Reactions with participation of solid organic substances. Part 4:
Method of determining the reactivity of systems consisting of two
solid organic substances. Uch.zap. KMOU 71:197-210 '56.

(MLRA 10:8)

(Systems (Chemistry))
(Chemical reactions)

GLUZMAN, M.Kh; KIL'NER, A.S.

Reactions with participation of solid organic substances, Part 5:
Studying the effect of the gaseous phase in the process of interaction
between solid organic substances. Uch.zar. KNGU 71:211-222
'56. (MLRA 10:8)

(Chemical reactions)

GLUZMAN, M. Kh.

Purification of alkali metal solutions of organic
resins. M. N. Gluzman, M. Kh. Gluzman,
V. M. Dushava, U.S.S.R., U.S.A.
1960. Patent application by telephone.

GLUZMAN, M.Kh.

Identification of glucosides furylchromones, alkaloids, and their salts by determining eutectic temperature. Apt.delo 6 no.1:10-14 Ja-F '57. (MLRA 10:3)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo khimiko-farmaceuticheskogo instituta
(AUTECTICS) (PHARMACOLOGY)

GLUZMAN, M. Kh.; DASHEVSKAYA, B.I.

Water soluble bases for suppositories and ointments based on
polyethylene oxides. Apt. delo 6 no. 2:73-77 Mr-Ap '57 (MIRA 10:6)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.
(ETHYLENE OXIDES) (SUPPOSITORIES) (OINTMENTS)

G. L. o z. 2. 31. 0. e, 117. K. D.

GLUZMAN, M.Kh.; LEVITSKAYA, I.B.

Study of the interaction of solid sulfathiazole and phthalic
anhydride. Med.prom. 11 no.12:17-22 D '57. (MIRA 11:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmaceutiche-
skiy institut.
(SULFATHIAZOLE) (PHTHALIC ANHYDRIDE)

OLUZHAN, M.KH.

Determination of eutectic melting of three-component organic systems. M. Kh. Oluzhan and V. P. Kuklinova (Chem. Research Institute, Khar'kov). Zhur. Obshch. Khim. 27, No. 10 (1957). The method previously used for eutectic melting of binary solid (G. A. 48, 7083b; Applied Dats 1957, No. 1, 18) was used successfully for a variety of 3 or 4-component org. systems by placing a crystal of the 3rd component on a binary eutectic or a ternary eutectic. M. Kh. Oluzhan

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.

Studying the properties of fat melts using physicochemical analysis. Zhur.prikl.khim. 29 no.7:1066-1070 Jl '57. (MIRA 10:10)
(Stearic acid) (Paraffins) (Fats and oils)

Guzman, M. K.

Dates 193d/1943

✓ Diatometry for the investigation of fats and related substances. By K. Gumen and B. I. Blashkevich (Sofia Research Inst., Institute of Kharkov), Zhur. Tekhn. Akad. 30, 1345-61 (1957); cf. C.I.L. 50, 17476. - Diatometric measurements were found useful in the investigation of fats. The coeff. of expansion at, say one temp., has been detd., the m.-p. interval can be narrowed, and the tendency of 2 phase (liquid or solid) formation can be detected.

HJ

11

GLUZMAN, M.

Answer to the letter of P.M. Isakov. Uch. zap. KGU 82:157
(MIRA 12:9)
'57. (Chemistry, Organic)

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0

GLUZMAN, M.Kh.

Reactions with participation of solid organic substances.
(MIRA 12:10)
Uch. zap. KHGU 95:249-275 '57.
(Chemistry, Organic)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0"

GLUZMAN, M.Kh.

Reactions with participation of solid organic substances.
Uch. zap. KGU 95:249-275 '57. (MIRA 12:10)
(Chemistry, Organic)

AUTHOR:

Gluzman, M. Kh.

SOV/79-28-11-19/55

TITLE:

Reactions Under the Cooperation of Solid Organic Compounds (Reaktsii s uchastiym tverdykh organicheskikh veshchestv) XI. Transformation of N-Aryl Amino Acids Into the Imides Under the Influence of Temperature (XI. Pre-vrashcheniye N-arylaminovykh kislot v imidy pod vliyaniem temperatury)

PERIODICAL:

Zhurnal obshchey khimii, 1958, Vol 28, Nr 11,
pp 2987 - 2993 (USSR)

ABSTRACT:

The authors devised a synthesis of the N-aryl amine acids from solid amines and solid anhydrides (Ref 25). The investigation of this reaction by plotting the heat (Ref 26) and kinetic curves of the acylation process of the amines under the cooperation of solid compounds (Refs 27,29) made it possible to devise conditions that secured a quantitative yield of the N-aryl amino acids and that also explained the role played by the liquid and gaseous phase in these processes. Based on the kinetic investigations

Card 1/3

Reactions Under the Cooperation of Solid Organic
Compounds. XI. Transformation of N-Aryl Amino Acids Into the Imides
Under the Influence of Temperature

SOV/79-28-11-19/55

and the heating curves it was possible to classify the influence of the temperature and the duration of heating on the degree of the transformation of these acids into imides. A complete idea of the influence exerted by these factors on the imidation process, which is necessary for the plotting of the diagram of the amine-anhydride systems (Ref 31) as well as for the working out of industrial acylation processes of the amines in solid phase (Ref 32), can only be obtained by way of the investigation of the kinetics of the process at different temperatures. Therefore the authors investigated the kinetics of the transformation of N-aryl amino acids into the imides at different temperatures. The results obtained are given in the table, and the imidation process in the course of time can be seen in figures 1-5. It was shown that the velocity and degree of the imidation depend on the structure of the N-aryl amino acids as well as on the basicity of the primary amines

Card 2/3

Reactions Under the Cooperation of Solid Organic Compounds. XI. Transformation of N-Aryl Amino Acids Into the Imides Under the Influence of Temperature SCV/79-28-11-10/55

from which they had formed. The imidation always begins in the solid phase, sometimes at a temperature that is far below the melting point of the aryl amino acid. In many cases a complete imidation of the aryl amino acid can be obtained in the solid phase. There are 6 figures, 1 table, and 34 references, 12 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvennyy univeristet (Khar'kov State University)

SUBMITTED: March 14, 1957

Card 3/3

AUTHOR: Gluzman, M. Kh. 76-32-2-23/38

TITLE: Reactions of Solid Organic Substances (Reaktsii s uchastiym tverdykh organicheskikh veshchestv) X. A Method for Plotting Phase Diagrams for Binary Organic Systems Capable of Consecutive Reactions in Fusion (X. Metod sostavleniya diagramm sostoyaniya dvoynykh organicheskikh sistem, pri splavlenii kotoriykh vozmozhny posledovatel'nyye reaktsii)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 388-393 (USSR)

ABSTRACT: Two modifications were performed in the method of H. Rheinboldt (Reference 5) and thus it was rendered suitable for the plotting of phase diagrams of anhydride-amino-systems. These modifications were: 1) Instead of fusing the components the thawing and melting of the thoroughly mixed solid powdery substances was observed. 2) The thawing and melting was observed not only in anhydride-amino systems but also in N-aryl-amino-acid anhydride and in N-arylaminoacid amine systems,

Card 1/3

76-32-2-23/38

Reactions of Solid Organic Substances. X. A Method for Plotting Phase Diagrams for Binary Organic Systems Capable of Consecutive Reactions in Fusion

taking into consideration that in some mixtures with melting points near the melting points of the correspondingly lower melting eutectics a heating up to not high temperatures could not lead to a reaction between solids. The tentative use of the Rheinboldt method changed by the authors for the plotting of the "thawing melting" diagrams of anhydride-amino systems showed that diagrams for the state of binary organic systems with chemical interaction can be plotted by observing the thawing and melting in the thoroughly mixed powdery substances, without making it necessary to fuse the mixture. This offers the possibility of plotting phase diagrams of such systems in which consecutive reactions take place during heating. Such diagrams for 12 anhydride-amino systems are given: phthalanhydride with n-toluidine, n-chloraniline, o-, m- and n-aminobenzoic acid; anhydride of amber with m- and n-aminobenzoic acid. There 14 figures, and 7 references, 4 of which are Soviet.

ASSOCIATION: Khar'kovskiy gosudarstvenny universitet im. A. M. Gor'kogo
(Khar'kov State University imeni A. M. Gor'kiy)
Card 2/3

76-32-2-23/38

Reactions of Solid Organic Substances. X. A Method for Plotting Phase Diagrams for Binary Organic Systems Capable of Consecutive Reactions in Fusion

SUBMITTED: November 23, 1956

1. Organic compounds--Chemical reactions 2. Organic compounds
--Phase studies 3. Organic compounds--Temperature factors

Card 3/3

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.; BODNYA, V.M.

Polyethylen oxide as a base for contraceptives. Akush.i gin. 35
no.6:21 N-D '59. (MIRA 13:4)
(POLYETHYLENES pharmacol.)
(CONTRACEPTIVES)

86326

15.8101

2209

8/190/60/002/012/013/019
B017/H078

AUTHORS: Gluzman, M. Kh., Dashevskaya, B. I., Bodnya, V. M.

TITLE: Preparation of Polyethylene Oxides by Polymerization of Ethylene Oxide

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 12,
pp. 1832 - 1838

TEXT: Two methods have been developed for the preparation of polyethylene oxides: 1) polymerization of ethylene oxide in the liquid phase at 120-150°C and 15-20 atm, and 2) by passing gaseous ethylene oxide into alkalic solutions of glycol. The composition of polyethylene oxides and their properties depend upon the ratio of ethylene oxide : water and ethylene oxide : glycol. The influence of the concentration of the catalyst (KOH or NaOH) on the rate of reaction and on the properties of the polymers is illustrated in Fig.5. The maximum value for the molecular weight of the polymerize depends on the nature of the catalyst and the purity of the monomer. The rate of polymerization in the autoclave depends on temperature, catalyst concentration, and conditions of contact between

Card 1/2

86326

Preparation of Polyethylene Oxides by
Polymerization of Ethylene Oxide

S/190/60/002/012/013/019
B017/B078

monomer and catalyst. The rate of polymerization in a column decreases with an increase of the molecular weight of the polymer and with a reduction of the catalyst concentration. Two methods of purifying commercial polyethylene oxide with ion exchangers and by electrodialysis have been investigated. Polymers with a molecular weight of 4000 were obtained. There are 8 figures, 1 table, and 20 references: 4 Soviet, 2 US, 8 German, 1 British, and 4 Swiss.

ASSOCIATION: Khar'kovskiy nauchno-issledovatel'skiy khimikofarmatsevticheskiy institut (Khar'kov Chemicalpharmaceutical Scientific Research Institute)

SUBMITTED: May 23, 1960

Card 2/2

5.320

S/153/60/003/02/17/034
B011/B006

AUTHORS: Gluzman, M. Kh., Mil'ner, R. S.

TITLE: Investigation of Interactions in Systems Composed of Solid Amines] and Succinic- or Benzoic Anhydride by Means of Heating Curves

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1960, Vol. 3, No. 2, pp. 305-311

TEXT: The authors investigated 24 binary systems composed of solid acid anhydrides and amines by drawing the heating curves. Twenty-four acid amides (Table 1) were obtained by this procedure. The authors describe the method of plotting the heating curves of organic systems. Mixed equimolal amounts of acid anhydride and amine were heated for 20 min in a glycerin bath at a rate of 0.5°C/min. The analytical procedure and calculation is described by M. Kh. Gluzman in Ref. 4. After crystallization from alcohol, the substance had sharp melting points which did not deviate from publication data. Of

Card 1/4

30669

Investigation of Interactions in Systems
Composed of Solid Amines and Succinic-
or Benzoic Anhydride by Means of
Heating Curves

S/153/60/003/02/17/034
B011/B006

these substances, the following have not yet been described in publications: (4-chloro-phenyl) succinamic acid, (3-carboxy-phenyl)succinamic acid, succinyl-2-aminothiazole, succinyl-4-aminoantipyrine, benzyl nor-sulfazole, and benzoyl 2-aminothiazole. Fig. 1 gives the heating curves of the systems composed of succinic anhydride and the following amines: p-toluidine, p-chloro aniline, α - and β -naphthyl-amine, o-, m-, and p-benzoic acid, o-, m-, and p-nitro-aniline, nor-sulfazole, 2-aminothiazole, and 4-aminoantipyrine. Eleven systems consisted of benzoic anhydride and the above-mentioned amines, except for the systems containing 4-aminoantipyrine and m-aminobenzoic acid (Fig. 2). Since heating of solid acid anhydrides with solid amines in nearly all cases gives practically quantitative yields in succinamides and benzamides, the authors suggest this method for preparing amides. On heating, the reaction sets in in the solid state (except in the systems No. 1 and 4, Table 2). Most amines react more vigorously with benzoic anhydride than with succinic anhydride (Tables 2 and 3). Systems containing o-nitro-aniline in the solid phase are acylated to atmost

Card 2/4

Investigation of Interactions in Systems
Composed of Solid Amines and Succinic-
or Benzoic Anhydride by Means of
Heating Curves

20560
S/153/60/003/02/17/034
B011/B006

components. There are 2 figures, 3 tables, and 32 references, 4 of which
are Soviet.

ASSOCIATION: Institut khimii Khar'kovskogo gosudarstvennogo universiteta
imeni A. M. Gor'kogo; Kafedra organicheskoy khimii
(Institute of Chemistry of the Khar'kov State University
imeni A. M. Gor'kiy, Chair of Organic Chemistry)

SUBMITTED: July 7, 1958

Card 4/4

S/153/60/003/004/024/040/kx
B020/B054

AUTHORS:

Gluzman, M. Kh., Mil'ner, R. S.

TITLE:

Study of the Process of Acylation of Solid Amines With
Solid Succinic and Benzoic Anhydride Under Isothermal
Conditions

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i
khimicheskaya tekhnologiya. 1960, Vol. 5, No. 4,
pp. 684 - 690

TEXT: The authors conducted a series of experiments in which the binary system anhydride - amine was kept under isothermal conditions for a time sufficient to obtain constant reaction yields. This made it possible to choose the optimum conditions for the synthesis of amides from solid components. The binary mixtures investigated were composed of succinic anhydride and the following amines: α - and β -naphthyl amine, o-, m-, and p-nitro-aniline, o-, m-, and p-aminobenzoic acid, p-toluidine, p-chloro aniline, nor-sulfazol, 2-aminothiazole, and 4-aminoantipyrine. The same amines, except for m-aminobenzoic acid and 4-aminoantipyrine.

Card 1/3

Study of the Process of Acylation of Solid Amines With Solid Succinic and Benzoic Anhydride Under Isothermal Conditions S/153/60/003/004/024/040/XX
B020/B054

were also present in the systems containing benzoic anhydride. The authors studied the behavior of the systems in the solid phase, at the melting points of the quasiequilibrium and equilibrium eutectic and of the low-melting component, as well as at temperatures 5-10°C lower than those of the phase transitions. At least five "yield-time" isotherms were found for each system in this way. An analysis of these isotherms shows that in known approximation all isotherms can be divided into four types (Fig.1). The effect of temperature on the rate and yield of benzoylated and succinated amides is shown in Fig.2. An investigation of the state of the systems at constant temperature permits an estimation of the effect of eutectic solutions and melts of the components on the reaction yield (Table 1). Table 2 gives data of the yields obtained on heating the systems to a temperature ensuring the formation of maximum amide amounts, and by keeping the component mixture under isothermal conditions. If the heating curves and the isotherms for the systems of solid anhydrides and amines are known, it is not only possible to describe the detailed conditions for the amide synthesis, but also to choose the optimum conditions for obtaining pure products in

Card 2/3

Study of the Process of Acylation of Solid Amines With Solid Succinic and Benzoic Anhydride Under Isothermal Conditions S/153/60/003/004/024/040/XX
B020/B054

consideration of the properties of reaction components. The parameters of temperature and time given in Table 2 are sufficient to synthesize the 24 amides mentioned in the most favorable manner. There are 2 figures, 2 tables, and 11 references: 8 Soviet, 1 US, 1 German, and 1 Polish.

ASSOCIATION: Institut khimii Khar'kovskogo gosudarstvennogo universiteta im. A. M. Gor'kogo, kafedra organicheskoy khimii
(Institute of Chemistry of Khar'kov State University
imeni A. M. Gor'kiy, Department of Organic Chemistry)

SUBMITTED: October 16, 1958

Card 3/3

GLUZMAN, M.kh., LEVITSKAYA, I.B.

Investigating the process of methylation of cellulose. Zhur.prikl.
khim. 33 no.5:1172-1177 My '60. (MIRA 13:7)
(Cellulose) (Methylation)

GLUZMAN, M.Kh.; RUBTSOVA, V.P. (Khar'kov)

Eutectic melting of systems composed of organic salts and acids.
Zhur. fiz. khim. 34 no.12:2742-2747 D '60. (MIRA 14:1)
(Eutectics) (Acids, Organic)

GLUZMAN, M.Kh., dotsent; LEVITSKAYA, I.B., kand.mod.nauk; BASHURA, G.S.,
nauchnyy sotrudnik

Carboxymethylcellulose sodium as a hydrophilic ointment base.
Vest.derm.i ven. 35 no.4:40-44 Ap '61. (MIRA 14:5)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo khimiko-farma-
tsevticheskogo instituta (dir. M.A. Angarskaya).
(OINTMENTS) (CELLULOSE)

GLUZMAN, M.Kh.; LEVITSKAYA, I.B.; BASHURA, G.S.

Methulcellulose as a base for ointments. Med. prom. 16
no.1:21-24 Ja '62. (MIRA 15:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut.
(CELLULOSE) (OINTMENTS)

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.

Use of surface-active substances in pharmacy. Med. prom. 16 no.3:15-
20 Mr '62. (MIRA 15:5)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut;
(SURFACE-ACTIVE AGENTS) (PHARMACY)

GLUZMAN, M.Kh.; BASHURA, G.S.; DASHEVSKAYA, B.I.

Anomaly of the viscosity of polyethyleneoxide and the effect
of certain medicines on it. Apt. delo 12 no. 5:17-23 8-0'63
(MIRA 16:11)

I. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevti-
cheskiy institut.

GLUZMAN, M.Kh. [Gluzman, M.Ch.]; BACHURA, G.S. [Bashura, N.S.]

Testing ointments prepared with hydrophilic bases by a pendulum consistometer. Farmatsev. zhur. 13 no.2:27-33 '63. (MIRA 17:10)

1. Khgr'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

GLUZMAN, M.Kh. [Gluzman, M.Kh.]; BASHURA, G.S. [Bashura, G.S.]

Preparation of a stable suspension of corinal. Farmatsev.
zhur. 18 no.4:31-34 '63. (MIRA 17:7)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.

GLUZMAN, M.Kh., kand. khim. nauk; BASHURA, G.S.; GABRIL'YAN, D.A.

Using a pendulum type consistometer for testing tooth paste
with a water-soluble base. Masl.-shir. prom. 29 no.3:28-31
Mr '63. (MIRA 16:4)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut.
(Toilet preparations--Testing)

GLUZMAN, M.Kh.; BASHURA, G.S.; LEVITSKAYA, I.B.

Purification of technical sodium carboxymethylcellulose.
Zhur.prikl.khim. 36 no.6:1258-1263 Je '63. (MIRA 16:8)
(Cellulose)

GLUEMAN, M.Kh.; BUDHURA, G.S.

Consistency of cinnamons and its determination. Report No.1.
Apt. deko 13 no.3; 3-14. My-Je '64. (MIRA 18,3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-fizikalicheskiy
Institut.

GLUZMAN, M.Kh., BASHURA, G.S.

Rheological methods used in evaluating the consistency of
ointments. Report No.2. Apt. deio 13 no.4, 20-27 Jl. Ag 16.

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut.

(MTRA 18;3)

L 62910-65

ACCESSION NR: AP5019287

UR/0332/65/000/007/0020/0032
665.3/35:661.185.1+547.27.661.718

AUTHOR: Gluzman, M. Kh. (Candidate of chemical sciences); Russia, U.S.

TITLE: Evaluation of the surface-active properties of certain emulsifiers in water-soluble cellulose ethers. Report No. 1.

SOURCE: Maslozhidrovaya promyshlennost', no. 7, 1985, 20-32

TOPIC TAGS: surface active agent, emulsifier, thickening agent, methylcellulose, sodium carboxymethylcellulose

ABSTRACT: The study deals with surface active agents (SAA) used for pharmaceutical purposes abroad and in the cosmetic and food industry in the SSSR. The experiments involved the use of specially prepared emulsions of vaseline oil, apricot oil, castor oil, and fish fat, which were stabilized with 15 SAA and 3 mixtures of the latter. The stabilizers and emulsion thickeners used were aqueous solutions of methylcellulose (CMC) and sodium carboxymethylcellulose (sodium-CMC), capable of increasing the viscosity of the medium and thus forming protective hydrate films at the interface. The surface-active properties of the SAA in the soluble cellulose ethers were determined. The surface tension of aqueous solutions of sodium-CMC changes insignificantly with concentration and is close to the sur-

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ACCESSION NR: AP5019287

surface tension of water; the greatest change is observed when the solution temperature is raised to 50°C (the surface tension of solutions of all concentrations is then 66 dyne/cm). Hence, sodium-CMC may be considered to be a surface-inactive substance. Studies of the surface tension of MC solutions as a function of concentration, temperature, and viscosity characteristics showed that MC is a weak surfactant. Nevertheless, both MC and sodium CMC are used as thickening agents in the preparation of emulsions because they form hydrate films and raise the viscosity of the dispersion medium. Orig. ext. has: 1 table.

ASSOCIATION: Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmaceuticheskiy institut (Khar'kov Scientific Research Chemico-Pharmaceutical Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOV: 002

OTHER: 007

llc
Card 2/2

GURMAN, M.Kh. [Ginzman, M.Kh.]; BACHURA, G.S. [Barshura, R.S.]; LEVITSKAYA, I.B.
[Levits'ka, I.B.]

Study of structural and rheological properties of water-soluble
cellulose ethers in various degrees of polymerization. Farmatsev.
zhur. 20 no.1:26-28 '65. (MIA 18-10)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut,

GLUZMAN, M.Kh.; DASHEVSKAYA, B.I.; FRIDMAN, G.M.

Preparation of sorbitan monoesters ("spans") and their
hydroxyethylated products (tweens). Zbir. prikl. khim.
38 no. 10:2319-2325 0 '65. (MIRA 18:12)

I. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut. Submitted October 30, 1963.

ACC NR: AP7007808

(A)

SOURCE CODE: UR/0030/67/040/001/0206/0209

AUTHOR: Gluzman, M. Kh.; Zaslavskaya, R. G.

ORG: Kharkov Scientific Research Chomico-Pharmaceutical Institute (Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut).

TITLE: Kinetics of phthalylation of acetylcellulose and viscosities of acetyl-phthalylcellulose solutions

SOURCE: Zhurnal prikladnoy khimii, v. 40, no. 1, 1967, 205-209

TOPIC TAGS: cellulose, viscosity, phthalylation, fluid viscosity

ABSTRACT: In order to determine the optimum conditions for preparing acetylphthalyl-cellulose (APC) which is soluble in organic solvents and weakly alkaline media, a study was made of the kinetics of phthalylation of acetylcellulose (AC) containing 27-32% acetyl groups at molar ratios of AC to phthalic anhydride equal to 1:3, 1:5 and 1:8 and temperatures of 60, 80 and 100°. The highest degree of substitution by phthalyl groups was obtained at a phthalic anhydride content of 8 moles per mole of AC at 80-100°. A study of the solubility of APC in mixtures of two organic solvents showed that it dissolves best in mixtures containing equal amounts of chloro derivatives of a hydrocarbon and alcohol. In mixtures of chloroform and dichloroethane with alcohol containing 5% APC, addition of alcohol first leads to a sharp increase and then to a decrease in the viscosity of the solutions. In dimethylformamide, an

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UDC: 547.458.82

Card 2/2

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R000615510003-0

GLUZMAN, M.P., inzh. (Krasnoyarsk); FATELEVICH, F.E., inzh. (Krasnoyarsk)

Improvement of IMZ boilers with 90/110 t/hr. evaporative capacity. Energetik 13 no. 12:13 D '65 (MIRA 19:1)

GLUZMAN, N. G.

Straškevič, A. M., and Gluzman, N. G. Aberrations of relativistic electron beams. Z. Tehn. Fiz. 24, 2271-2284 (1954). (Russian)

An electron beam is defined as the totality of moving electrons having the same initial velocity and trajectories close to an axial trajectory. Relativistic equations of motion are derived for a wide beam in an arbitrary electrostatic field. In this treatment the axis need not be a straight line but may be bent, e.g. in the form of a helix. The systems with a bent axis are of special interest since they may give rise to negative chromatic aberration. The special cases considered are the relativistic equations of motion in an axially symmetrical field, a flat field, the field of a cylindrical lens, and the field of a cylindrical condenser. Image aberrations are computed for the relativistic case for an axially symmetrical lens and a cylindrical lens. J. E. Rosenthal.

1 - P/W

GLUZMAN, S.S.

Use of control calculating machines for the regulation of the
parameters of technological processes. Khim.prom. no.12:920-922
D '63. (MIRA 17:3)

L 38583-65 ERT(d)/EPZ(n)-2/EIP(1) Pa-L/Pa-L/Pe-L/Pa-L/Pa-L/Pa-L/Pa-L
ACCESSION NR: AP5005932 VN/2C S7619765/000/000/0003 LIP(c)

AUTHOR: Gluzman, S. S. (Engineer); Kraynov, V. N. (Candidate of technical sciences); Martyushin, Ye. I. (Engineer)

TITLE: Selecting the number of digits for output devices of a multichannel digital controller

SOURCE: Priborostroyeniye, no. 2, 1965, 1-3

TOPIC TAGS: digital controller, digital process control, automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: Using a model which simulated a digital process control, the effect of level quantization of the controlling signal upon the control process was evaluated; also, a minimum number of digits in the control-computer output which still did not impair the quality of control was determined. The investigation was performed on a "Kataliz" analog computer to which a set of delay lines was

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L 38589-65

ACCESSION NR: AP5005932

added; the signal was level-quantized by a nonlinear NB-5 unit, and the number of stops at its output showed the number of digits. To reduce the amplitude of sustained cycling that accompanied a few-digit system, the control-parameter algorithm was changed; instead of calculating the control-organ position, its speed was calculated; a stepping motor was used as an actuating device. A linear nonisometric-digit code conversion of the control signal (greater control action for greater errors) made possible a high-static-accuracy system with a few digits in the output devices. "O. G. Druzhinin took part in the simulation of digital automatic-control systems." Orig. art. has: 5 figures, 5 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: DP, IE

NO REF SOV: 001

OTHER: 002

jl
Card 272

L 63057.60 EAT(d)/EWPKY/SPKPL/T/EXP(r) 10000000
ACC NR: AP6010021 SOURCE CODE: UR/0119/66/000/003/0003/0006

AUTHOR: Gluzman, S. S. (Engineer); Druzhinin, O. G. (Engineer); Martyushin, Ye. I. (Engineer)

ORG: none

TITLE: Modeling of industrial digital controls on analog computers

SOURCE: Priborostroyeniye, no. 3, 1966, 3-6

TOPIC TAGS: automatic control design, control simulator, computer control system, automatic control equipment, analog computer, digital computer system

ABSTRACT: Digital control computers are being utilized as multichannel regulators of technological processes. The authors discuss the circuits of such a multichannel system, analog-to-digital conversion, and the difficulties encountered in the design of such systems. The difficulties involve the analytical determination of time optimal control, the tuning parameters of each channel, the influence of the level quantization on the control process, etc. Since many such problems can be studied relatively simply on analog simulators the paper presents and discusses, among others, the block diagrams of a fixator model, a control-law components model, a variable coefficient block model, and a signal level quantization block model. Some

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UDC: 681.142.334

59
B

GLUZMAN, V.

The works of the technical library is organized by the Scientific
and Technical Division. Muk.-elev. prom. 27 no.9:27-28 S '61.
(MIRA 15:2)

1. Prosvodatel' Soveta pervaichnoy organizatsii nauchno-
tekhnicheskogo obshchestva khlebnoy bazy No.80.
(Technical libraries)

GLUZMAN, V.

More on bucket conveyor bolts. Muk.-elev. prom. 30 no.3:30
Mr '64. (MIRA 17:4)

1. Glavnnyy inzhener Khar'kovskogo mel'krupozavoda No.2.

LEBEDEVA, A.N.; GLUZMAN, V.S.

Remote results of radiologic and operative therapies of uterine cancer. Trudy AMN SSSR 21 no.4:81-86'52. (MIRA 10:8)

1. Iz onkologicheskoy kliniki Sverdlovskogo nauchno-issledovatel'skogo institut. fizicheskikh metodov lecheniya (zav. - prof. L.M. Batner, dir. - kand.med. nauk Ye.I. Milyutina)

(UTERUS, neoplasms,
radiother. & surg., results)

(RADIOTHERAPY, in various diseases,
cancer of uterus)

GIL'IAK, Ye. I.

32754. Isch'ye i ikh lechenie po M. V. Gilei. Dnipro
Kievsk. Nauch.-Iszdat. Psichonevrol. Inst., t. XII, 1949, s. 151-53

SC: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

Treatment of circadian psychoses by protracted broken sleep.

Study of Kiev Soc Res Psychoneurological Inst.

GLUZMAN, Ye. B. MELER'YAN, Ye. A.

Bioelectric characteristics of electroshok. Zh. nevropat.
psichiat., Moskva 52 no.3:17-21 Mar 1952, (CLML 22:2)

1. Candidate Medical Sciences for Gluzman. 2. Of the Clinic
for Borderline Conditions (Head -- Prof. A. L. Abashev-Konstantinovskiy)
and Department of Electrophysiology (Head -- Senior Scientific
Associate N. V. Semenov) of Kiev Psychoneurological Institute
(Director -- P. S. Tarasenko; Scientific Assistant to Director --
Prof. B. N. Man'kovskiy, Active Member AMS USSR).

GLJZMAN, Ye.B., kand.med.nauk

Hypochondriac syndromes following previous neuroinfectious diseases.
Vop. klin. nevr. i psikh. no.2:304-310 '58. (14:10)
(HYPOCHONDRIA) (NERVOUS SYSTEM-DISEASES)

GLUZMAN, Ye.B., kand.med.nauk

Hypochondriac reactions and the development of hypochondria.
(MIRA 16:5)
Vrach.delo no.2:89-93 F '63.

1. Kafedra psichiatrii (zav. -- prof. Ya.P. Frunkin) Kiyevskogo
meditsinskogo instituta i Vtoraya dorozhnaya bol'nitza Yugo-
Zapadnoy zheleznoy dorogi.
(HYPPOCHONDRIA)

KAZAKEVICH, R.L.; GLUZMAN, Ye.B.(Kiyev)

State of the peripheral blood circulation in diencephalic syndromes of different etiology. Vrach. delo no.8139-141 Ag'63. (MEA 16:9)

1. Dorozhnaya bol'nitsa No.1 i Dorozhnaya bol'nitsa No.2 Yugo-Zapadnoy zheleznoy dorogi.
(BLOOD—CIRCULATION) (DIENCEPHALON—DISEASES)

GLUZMAN, Ye. I.

Industrial and technical propaganda at the Petr Anisimov Factory.
Tekst.prom.17 no.1:48-49 Ja '57. (MLEA 10:2)

1. Zamestitel' predsedatelya pravleniya kluba imeni X-letiya Oktyabrya pri Leningradskoy pryadil'nno-tkatskoy fabrike imeni Petra Anisimova. (Leningrad--Textile factories)

BARAYANTS, A.A.; SMILLER, M.R.; KOLESNIK, M.K.; BALYUK, O.N.; SINADSKIY, N.Ye.,
kand.med.nauk; GLUZMAN, Yu.D.; RUDENKO, G.D., kand.med.nauk; AKIMOVA,
Ye.A., promyshlennyj vrach; SIDENKO, K.I.

Discussions. Vop. travm. i ortop. no.13:47-60 '63. (MIRA 18:2)

1. Glavnyy vrach lechebnogo ob"yedineniya shakhty "Dolinskaya",
kombinata "Sakhalinugol'" (for Barayants). 2. Zaveduyushchiy
Yuzhno-Sakhalinskym gorodskim travmologicheskim punktom (for
Smiller). 3. Kholmskoye upravleniye stroitel'noye upravleniye
Sakhalinshakhtstroya (for Kolesnik). 4. Doverennyj vrach
Dorozhnogo komiteta professional'nogo soyuza rabochikh
zheleznodorozhnogo transporta (vr Balyuk). 5. Irkutskiy
gosudarstvennyj nauchno-issledovatel'skiy institut travmatologii
i ortopedii (for Sina'skiy). 6. Starshiy inspektor Gosudarstvennoy
avtomobil'noy inspeksii (for Gluzman). 7. Leningradskiy nauchno-
issledovatel'skiy institut travmatologii i ortopedii (for Rudenko).
8. Glavnyy vrach meditsinskogo ob"yedineniya goroda Shakterska,
Sakhalinskaya oblast' (for Sidenko).

Z.
GLUZM Zh., inzhener.

Utilizing the heat of circulating water. Energetik 4 no.11:23-
24 N '56. (MLRA 9:12)

(Feed water)

GLUZMAN 2412

14. ~~REMOVAL OF AIR LEAKS IN VACUUM SYSTEMS OF SHIP TURBINE~~

(Japan, 1952) (Emigrele (Perf. Engg. Moscow), Jun. 1952, Vol. 5, No. 1, p. 14) A device holding a naked flame near a suspected leak, a hand instrument having a rubber nozzle, behind which is a rubber membrane. When the nozzle approaches an air leak the membrane covers and completes an electrical circuit containing a torch bulb and battery in the handle of the instrument.

(1)

GLUZMAN, Zh.Z., inzh.

Self-regulation of the discharge of condensate pumps. Elek. sta. 29
no.7:26-28 Jl '58. (MIRA 11:10)
(Steam turbines)

GLUZUNOV, A. A.

Trukhanov, A. A., Shershov, S. F., Rozenman, A. S., Kheyster, I. M., Gluzunov, A. A.,
and Gludinskiy, P. G. Participated in a discussion on the "Waste of Metal and Decreasing
the Power Losses in the Electrification System of the USSR"

Moscow Power Engineering Institute imeni Molotov (MEI,
SO: Elektrichestvo, No. 5, 1947; (W-27801, 14 Sept. 1953)

L 55236-65 EWT(m)/EPF(c)/EWP(j)/EWA(c)
ACCESSION NR: AP5015565

Po-4/Pr-4

RPL

JW/RH

UR/0286/65/000/038/0144/0144

3/13

AUTHORS: Skripko, L. A.; Glyadelova, V. G.

TITLE: A method for obtaining N,N'-di-(C₇ - C₉)-alkyl-n-phenylenediamine. Class 12,
No. 150521 15

SOURCE: Byulleten' izobreteniy i tovarknykh znakov, no. 8, 1965, 144

TOPIC TAGS: phenylenediamine, alkylation, catalyst, aliphatic alcohol, fuel,
polyethylene, inhibitor, rubber

ABSTRACT: This Author Certificate presents a method for obtaining N,N'-di-(C₇ - C₉)-alkyl-n-phenylenediamine by alkylating N-phenylenediamine at a high temperature in the presence of a catalyst. To simplify the technique of the process, a mixture of aliphatic alcohols C₇ - C₉ of normal structure is used as the alkylating agent, and Ni-rhenium as the catalyst. The product obtained by the above method may be used as a motor fuel stabilizer, as the thermostabilizer of a low-pressure polyethylene, and as an inhibitor of the nitrogen aging of rubber. 15

ASSOCIATION: none

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000615510003-0"